

# Electronic Flight Bag (EFB): CAP Utilization Guidance

(6 April 2015)

**EFBs may be used by CAP Pilots provided pilots are in full compliance with FAA guidance and the guidance provided here:**

## **Definitions:**

Electronic Flight Bag (EFB) – An electronic display system intended primarily for flight deck use that includes the hardware and software needed to support flight operations. EFB devices can display a variety of aviation data or perform basic calculations (e.g., performance data, fuel, calculations etc.). EFB systems may be used in conjunction with, or to replace, some of the paper reference material that pilots typically carry in the cockpit such as aeronautical charts and terminal procedures.

Electronic Chart Display (ECD) – A display device that presents a comprehensive depiction of interactive information and/or precomposed information that is the functional equivalent of a paper aeronautical chart

## **Guidance:**

CAP recognizes the potential benefit of using portable electronic devices (PED), such as commercially available portable computers, to perform a variety of functions traditionally accomplished using paper references. This includes use of EFBs/ECDs. The technology for EFBs/ECDs, both in regards to hardware and software, is rapidly evolving and CAP members may substitute their personal EFBs/ECDs for what has traditionally been member supplied paper aeronautical information if the following requirements are met.

- a. The PIC has reviewed FAA Advisory Circular 91-78 and ensures that the requirements of AC 91-78 para 6 a (1) and (2) are met.
- b. The PIC has ensured they have completed training (preferably ground and flight with an appropriate safety pilot or Instructor Pilot) with the EFB/ECD they are using and have self determined their proficiency and use of their provided device is appropriate for the intended operations (e.g. VFR and /or IFR flight) and it's use is a suitable substitution of their traditionally provided products.

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- c. The PIC has ensured they have completed system familiarization (preferably with a CFI or safety pilot to provide suitable collision avoidance when done in flight) with the EFB/ECD they are using and have self determined their proficiency and use of their provided device is appropriate for the intended operations (e.g. VFR and /or IFR flight) and it's use is a suitable substitution of their traditionally provided products. The pilot is responsible for aircrew EFB/ECD proficiency should they elect to use it for CAP flying and must be proficient prior to utilization in CAP.
- d. The PIC has determined appropriate preflight checks for the EFB/ECD have been established and are completed prior to each flight. Typically these actions will include verifying data currency, ensuring data is properly downloaded into the device, that cell service/WiFi are set correctly for flight operations (usually OFF), and that an adequate power source is available for the planned operation. As EFBs/ECDs require electrical power, special attention should be placed on the need for power during planned flight operations, expected mission deviations, limitations of aircraft power (to include some aircraft limitations to turn off cabin power during certain phases of flight) and the ability to reconstitute batteries during non-flight periods.
- e. The PIC has a planned course of alternate action should the EFB/ECD fail in flight. It is highly recommended that some level of basic paper aeronautical information be available for use in an emergency situation.
- f. The PIC has approved EFB use during flight prior to any crew member bringing an EFB on a sortie. The pilot takes measure to ensure EFB utilization does not interfere with aircraft control and are used in full compliance with FAA rules & requirements, and the PIC says it's okay to use them, then it's okay to use them.
- g. Check pilots shall inquire into the applicant's use of EFBs/ECDs during CAP operations and include their use, as appropriate, during annual and abbreviated check ride flights. Ground and flight evaluations shall be based on meeting the established FAA Areas of Operation and tasks of the appropriate Practical Test Standards using the EFB/ECD tools and methods the pilot uses during normal CAP operations.

See Ten things to Remember when using a Tablet during Flight, on next page.

## **Ten Things to Remember when using a Tablet during Flight:**

1. Download current chart databases and confirm currency before flight. Be sure to permanently save charts to your tablet, since there is no internet connection in the cockpit, streaming charts can't be displayed in flight.
2. Use an external GPS with a WiFi-only tablet. Because WiFi-only tablets have no internal GPS, they require an external source like a Bad Elf or a Stratus ADS-B receiver to continue to see that ever so important little blue airplane, on your tablet, in the air.
3. Leave Airplane Mode "OFF." Airplane Mode is really for airline passengers. Turning Airplane Mode ON will disable the tablet's internal GPS, in addition to Bluetooth, LTE and WiFi. It is recommended that you leave it alone.
4. The glareshield is not a good storage place for your tablet on a sunny day. Tablets can overheat in direct sunlight and may even display "too hot" error message indicating an overheated status which may be accompanied by a required 5-10 minute cool down period prior to use.
5. Fly with a fully charged battery!
6. Keep your software updated; this is how providers correct software bugs.
7. Fly with a current model of tablet. Newer model tablets offer faster processing times and accept software updates; while older tablets may not accept necessary software updates, which means you may never get bug fixes or new features in your flight apps.
8. Secure your tablet in the cockpit. Utilize a mount or a kneeboard to keep it from flying around the cockpit.
9. To use the Track-up feature, auto-center mode must be ON. In order for the Track-up feature to work, the map must be centered on your airplane, so that it moves with your airplane.
10. Keep your attention focused where it should be while flying. Avoid excessive heads-down time. Tablets are amazing tools, good for safety and fun to use, but remember to look out the window!

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OPR: CAP NHQ/DOV